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Construction Spending, Labor & Materials Outlook

NC State Construction Conference
Raleigh, March 27, 2014

Ken Simonson

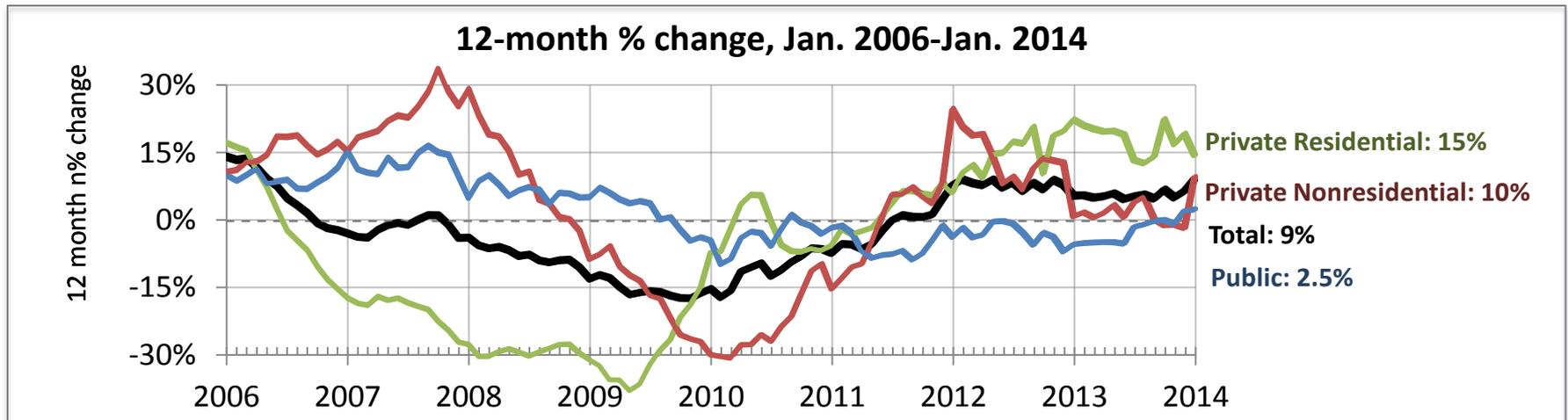
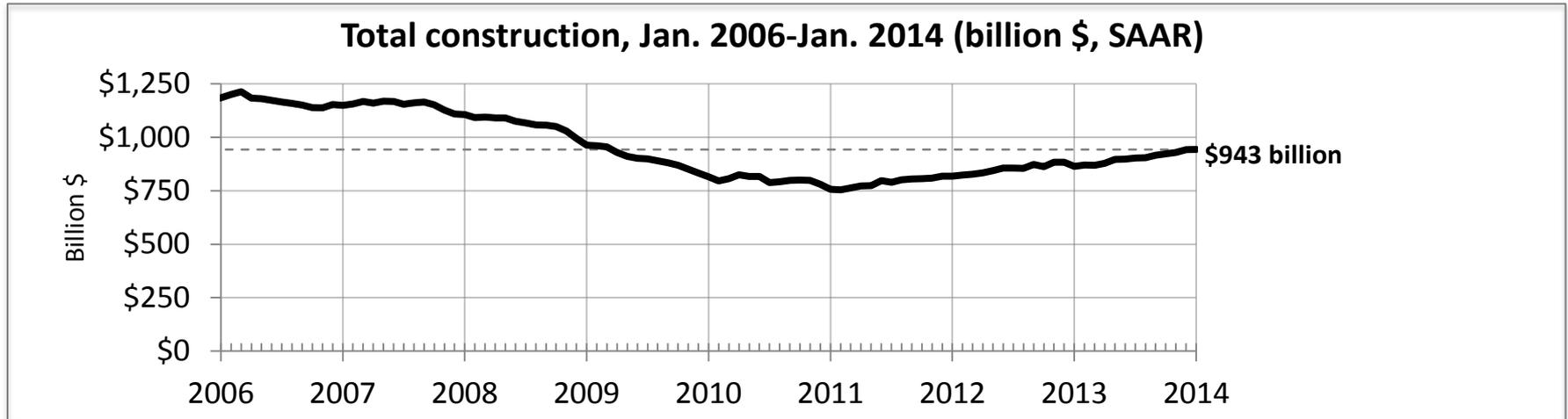
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2014 AGC Construction Outlook Survey Results

Compared to 2013, do you expect the available dollar volume of project you compete for in 2014 to be:

<u>Category</u>	<u>Net</u>	<u>Higher</u>	<u>Lower</u>	<u>Same</u>
Manufacturing	+28%	44%	16%	40%
Retail, warehouse, lodging	+28	43	16	41
Private office	+28	43	14	43
Hospital/higher education	+25	42	17	41
Power	+25	40	15	45
Water/sewer	+17	35	17	48
Highway	+10	31	21	49
Public buildings	+5	30	25	45
K-12 school	+4	29	25	47
Other transportation	+3	24	21	55
Marine construction	-2%	18	21	61

Construction spending (seasonally adjusted annual rate—SAAR)



Construction is growing, but unevenly

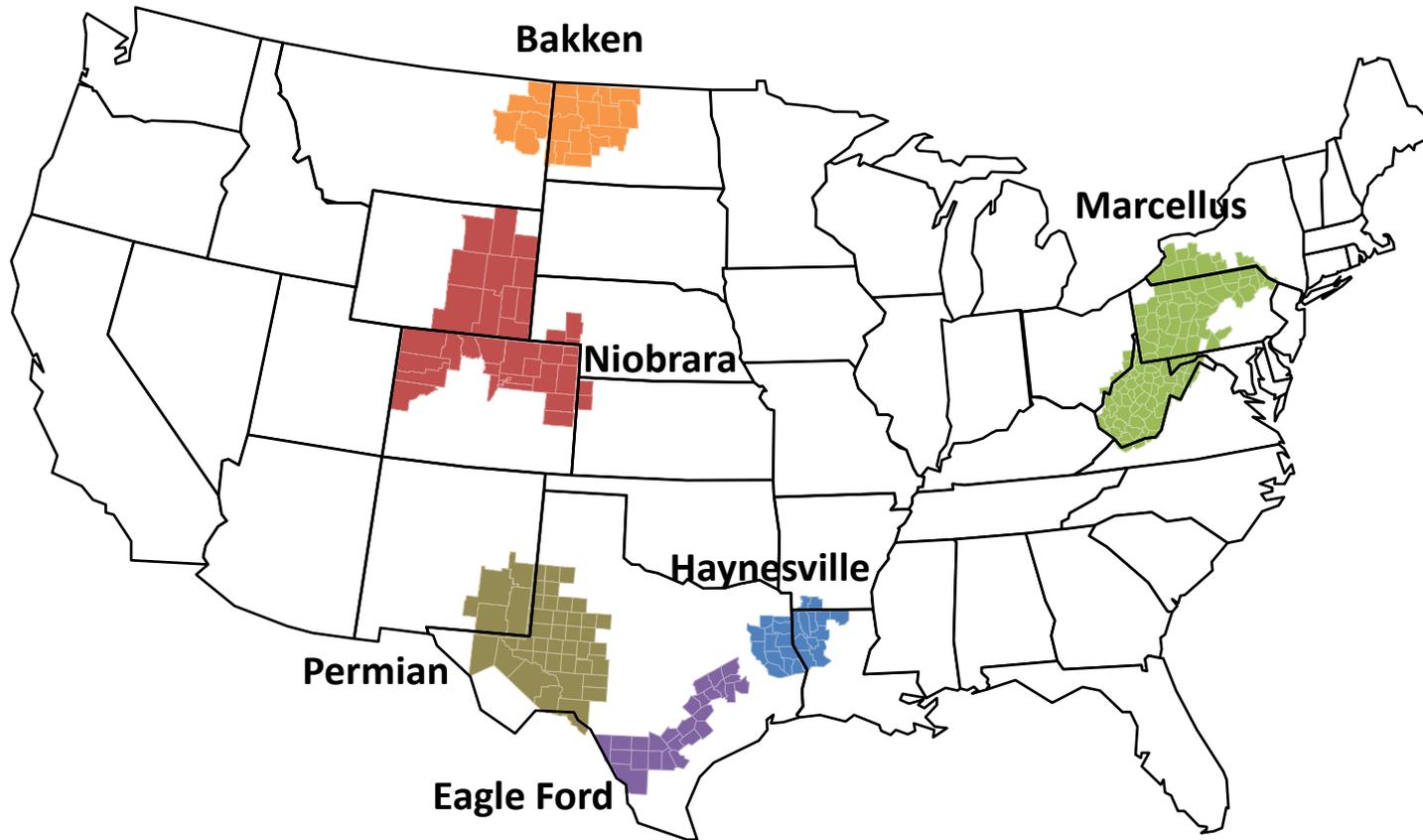
3 trends helping many sectors and regions:

- 'Shale gale'
- Panama Canal expansion
- Residential revival

3 trends holding down construction growth:

- Government spends less on schools, infrastructure
- Consumers switch from stores to online buying
- Employers shrink office space per employee

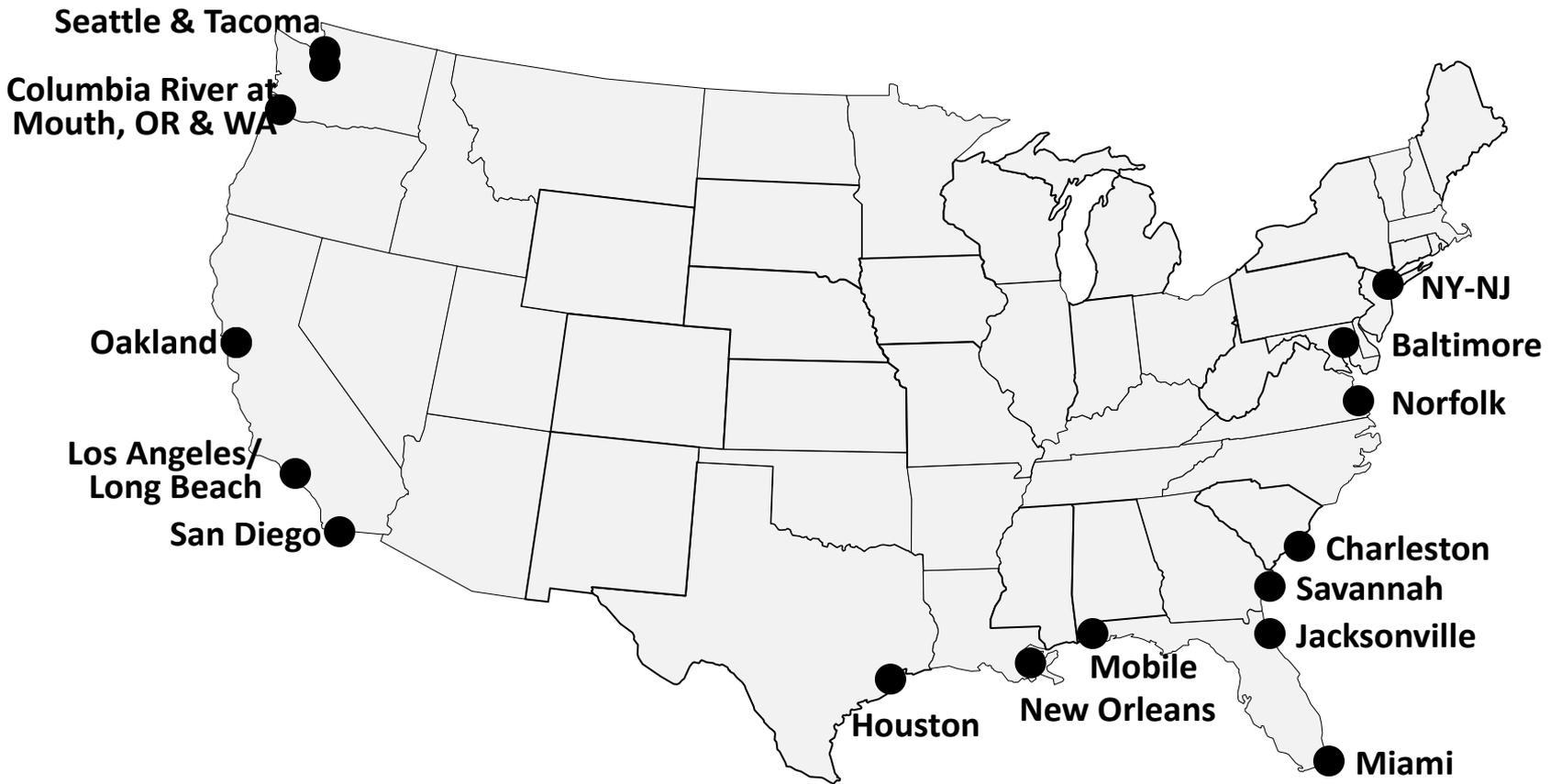
One (or many) bright spot(s): the shale 'gale'



Shale's direct and indirect impacts on construction

- **Onsite:** Each well requires access road, site prep, pad, storage pond, support structures, pipes
- **Nearby:** Products, water require trucking, rail, pipeline, processing
- **Local spending** by drilling firms, workers, royalty holders
- **Upstream:** orders for fracking sand, rigs, compressors, pumps, pipe, tanks, trucks, railcars, processing facilities
- **Downstream:** Petrochemical, power, steel plants; LNG export terminals, fueling stations; LNG-powered vehicles
- **Losers:** coal; maybe wind, solar, nuclear & suppliers

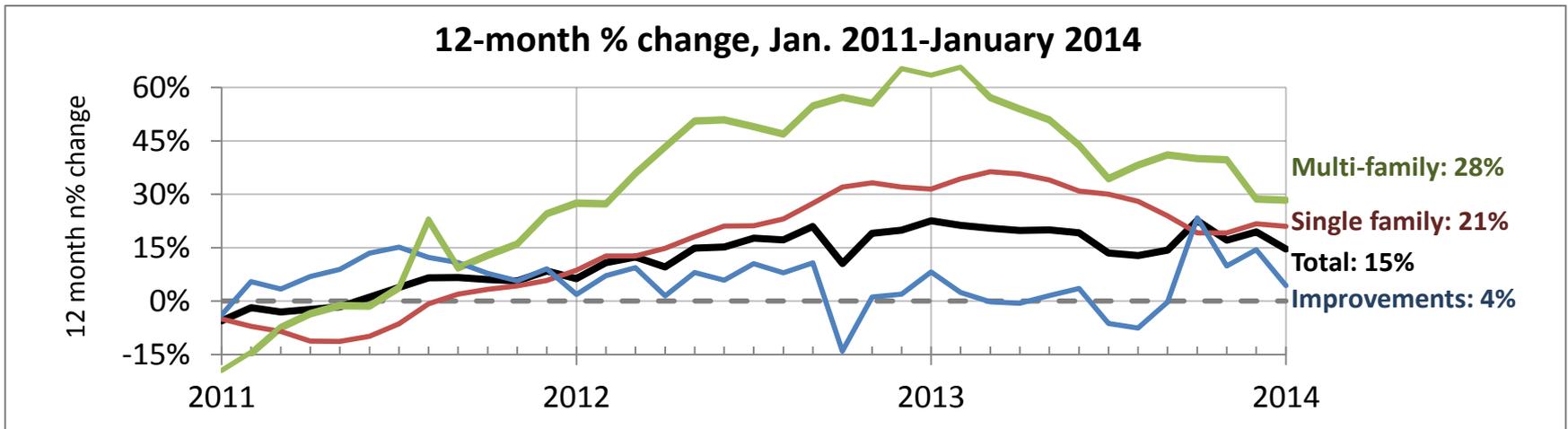
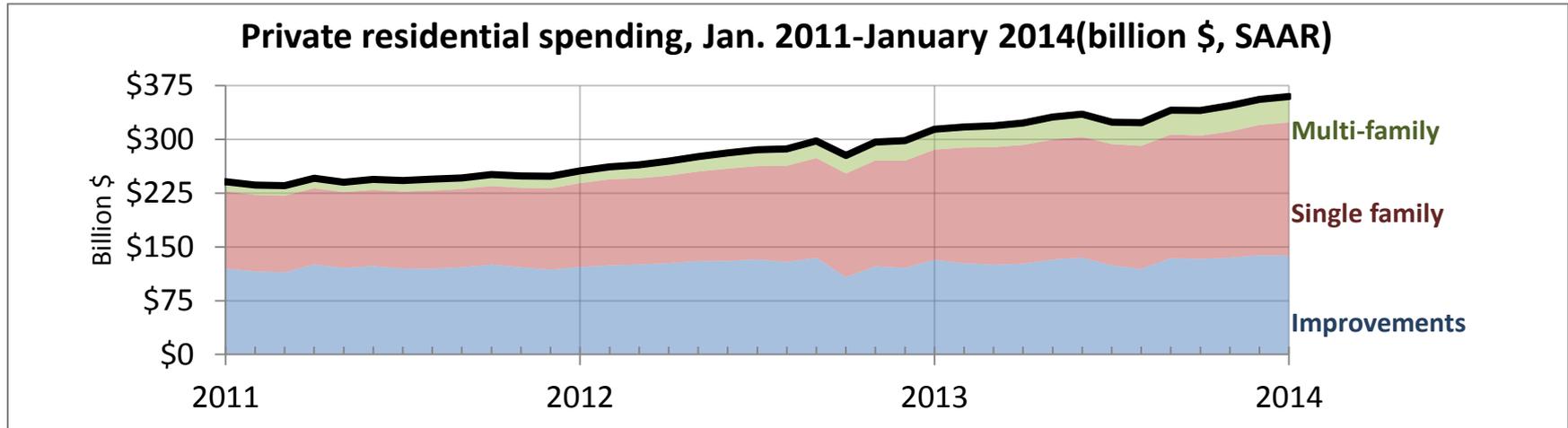
U.S. ports affected by Panama Canal expansion



Panama Canal expansion's impacts on construction

- **Ports:** investing in dredging, piers, cranes, land access
- **Nearby:** Storage, warehouse, trucking, rail facilities
- **Bridge, tunnel, highway** improvements
- **Inland:** possible changes in distribution, manufacturing

Private residential spending is still rising—for now



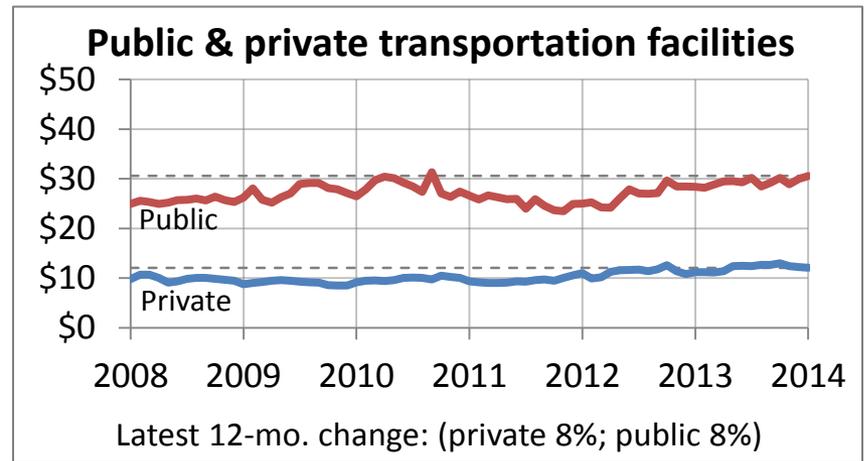
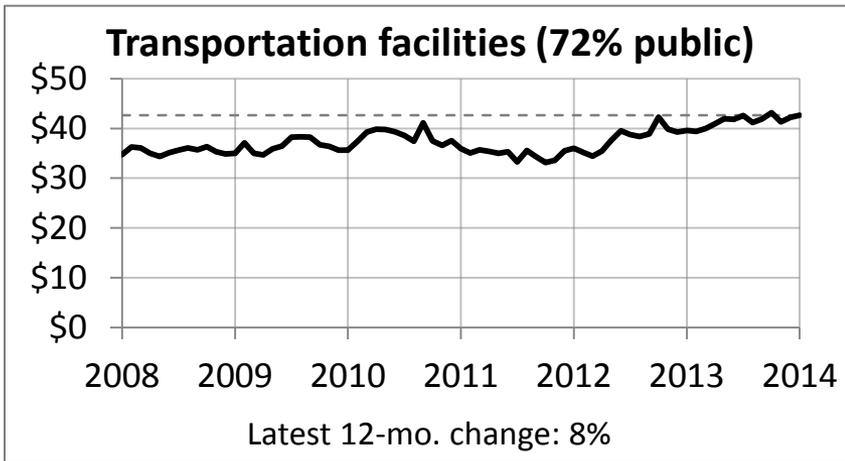
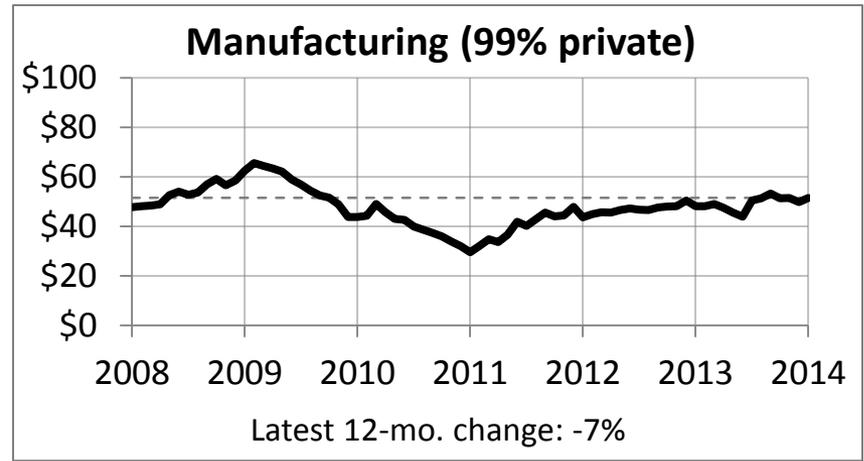
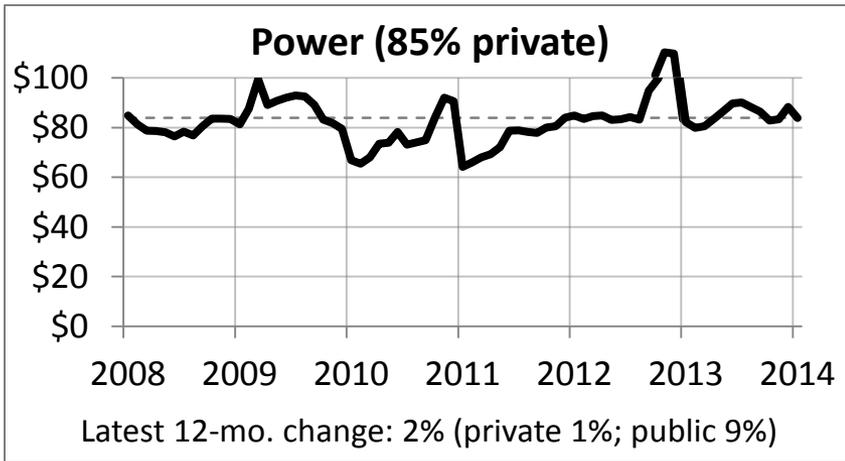
Housing outlook

- SF: rising for now but tight credit, fear of lock-in, demographic shifts may limit increases
- MF: Upturn should last into 2015
 - Vacancy rates near multi-year lows in most cities
 - Preference for urban living, add to demand
 - Condos have been slower to revive than rentals
 - Government-subsidized market likely to worsen
- Improvements: should benefit from rising SF sales

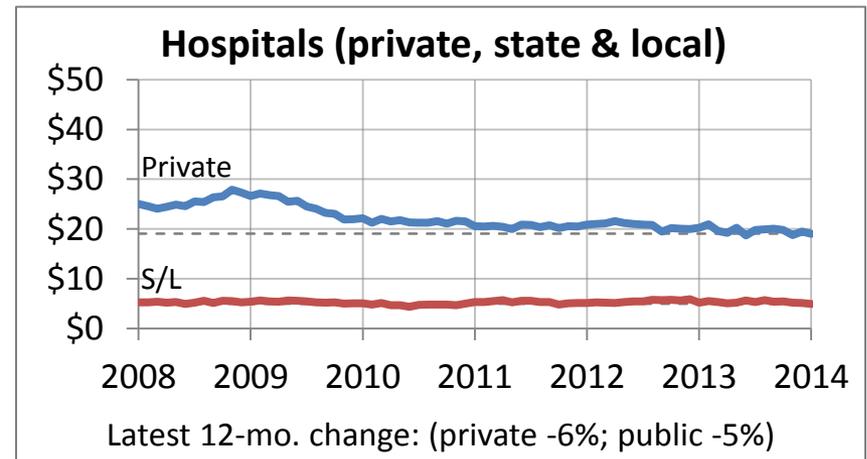
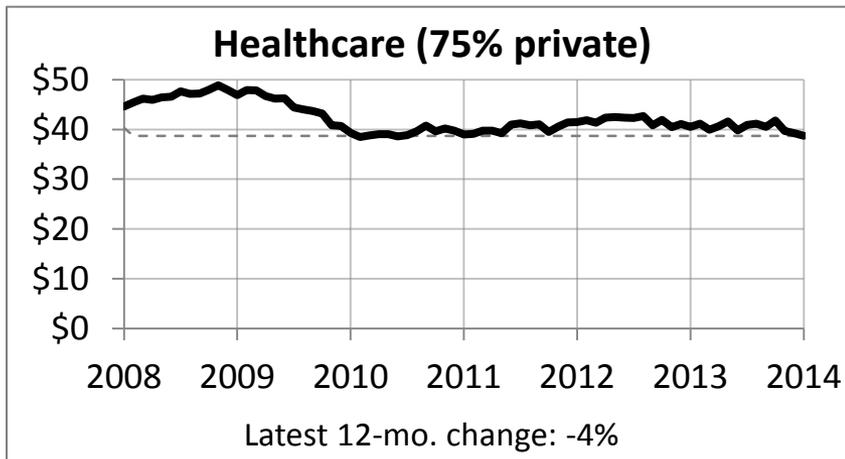
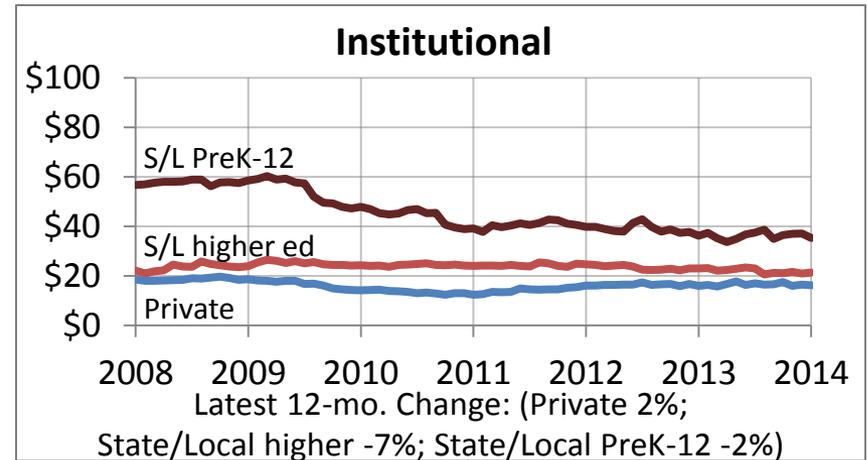
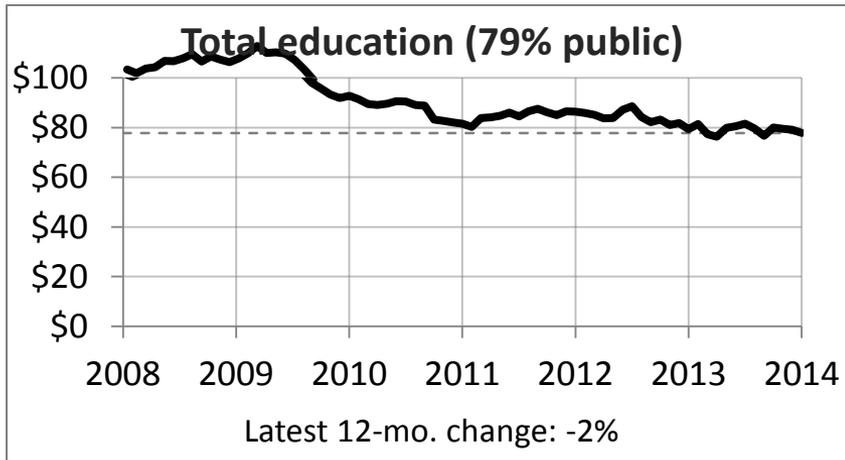
Nonres segments, 2013 & 2014 forecast (billion \$, SAAR)

	<u>1/14 Total</u>	<u>2013 vs. 2012</u>	<u>2014 Forecast</u>
Nonresidential	\$579 billion	-2%	4-8%
Highway and street	88	1	0 to -5
Power (incl. oil & gas structures, pipelines)	84	-11	10+
Educational	78	-6	0 to -5
Commercial (retail, warehouse, farm)	52	6	0 to 5
Manufacturing	51	5	10+
Transportation	43	8	2 to 5
Office	42	0	0 to 5
Health care	39	-3	near 0
Communication	21	-11	
Sewage and waste disposal	20	-1	
Lodging	17	26	10+
Other (amusement & recreation; water; public safety; conservation; religious): 8% of total		-3	

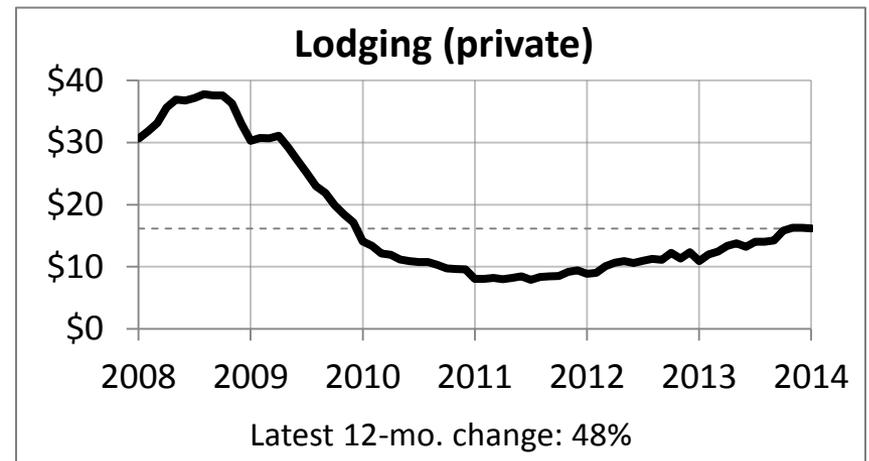
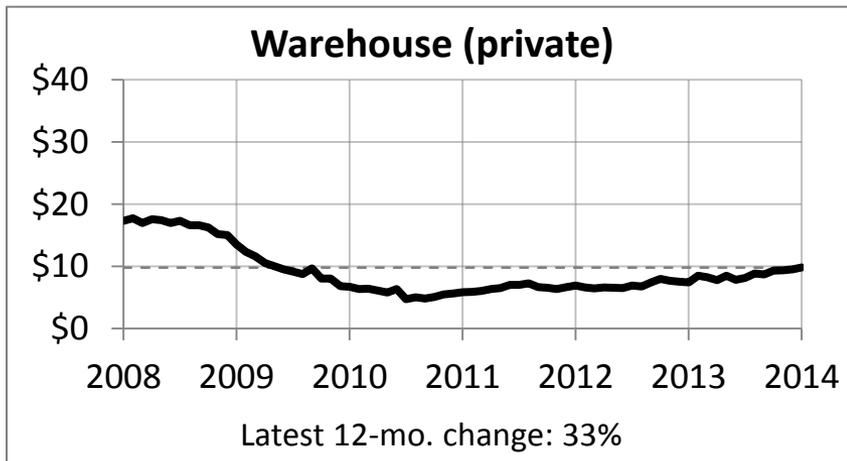
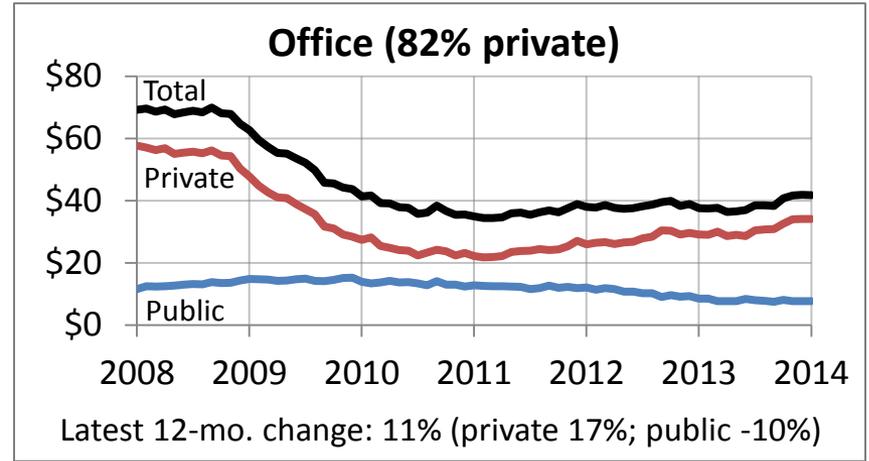
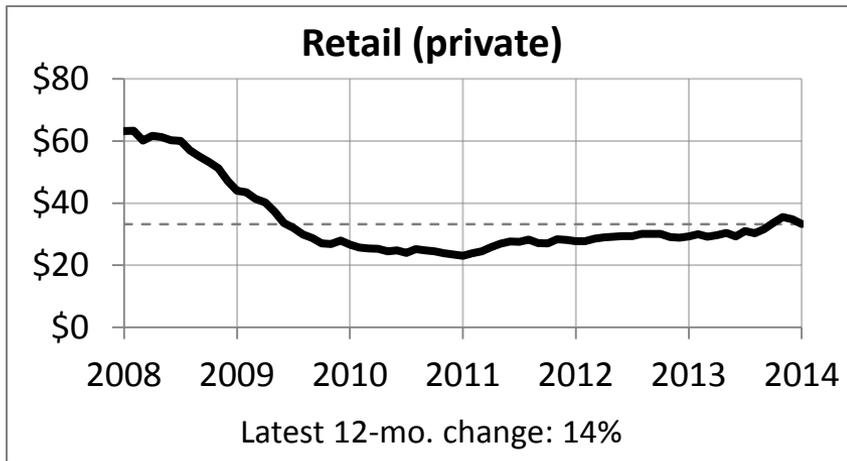
Construction spending: industrial, heavy (billion \$, SAAR)



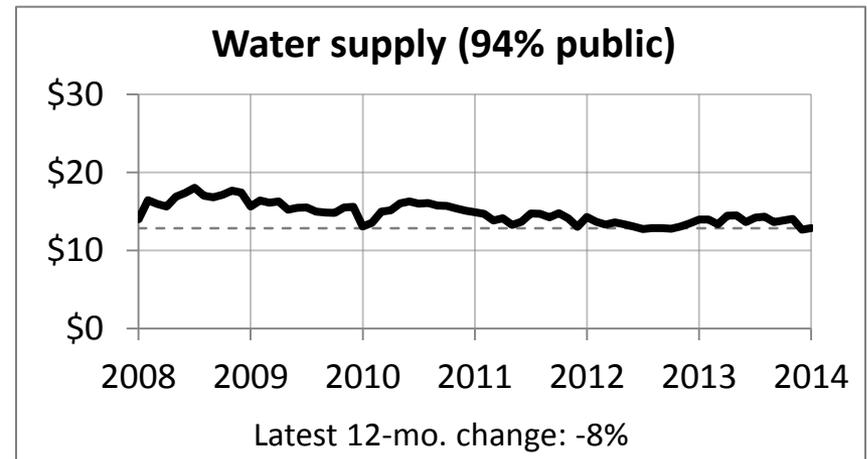
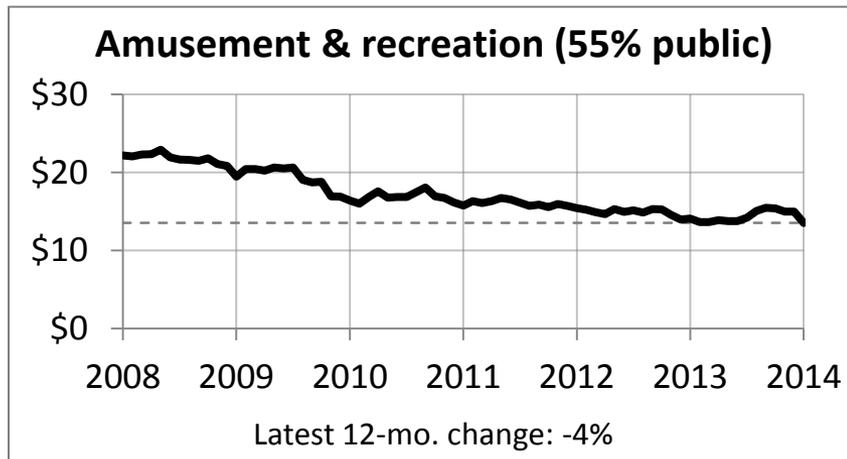
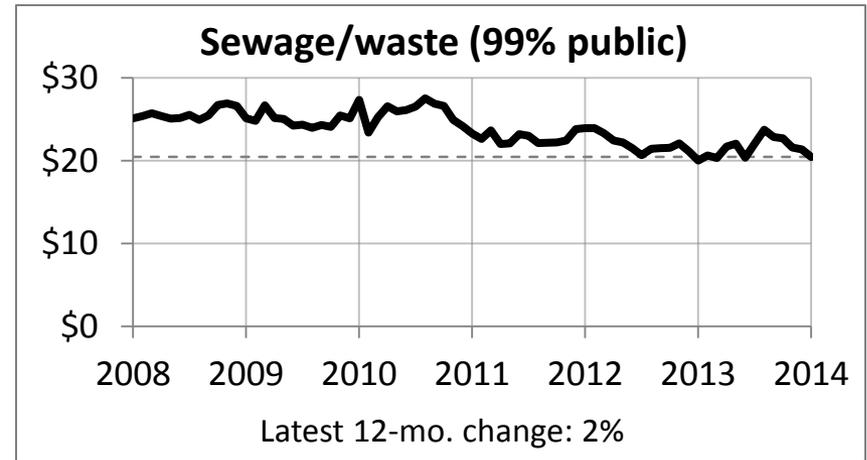
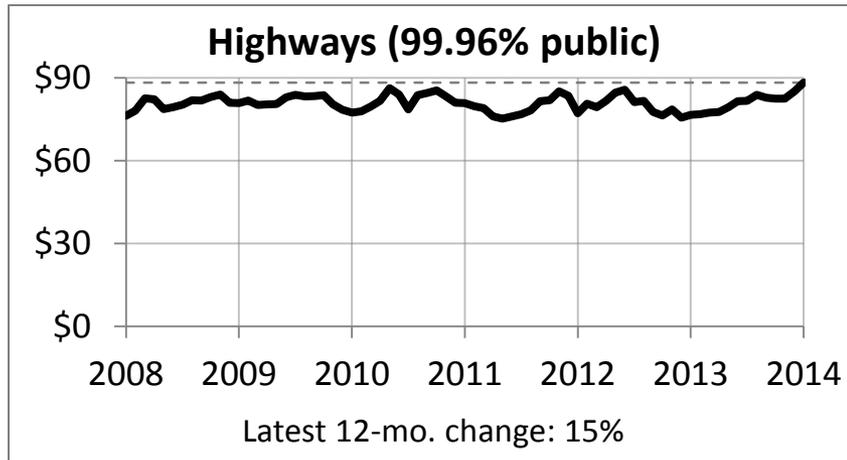
Construction spending: institutional (private + state/local)



Construction spending: developer-financed (billion \$, SAAR)

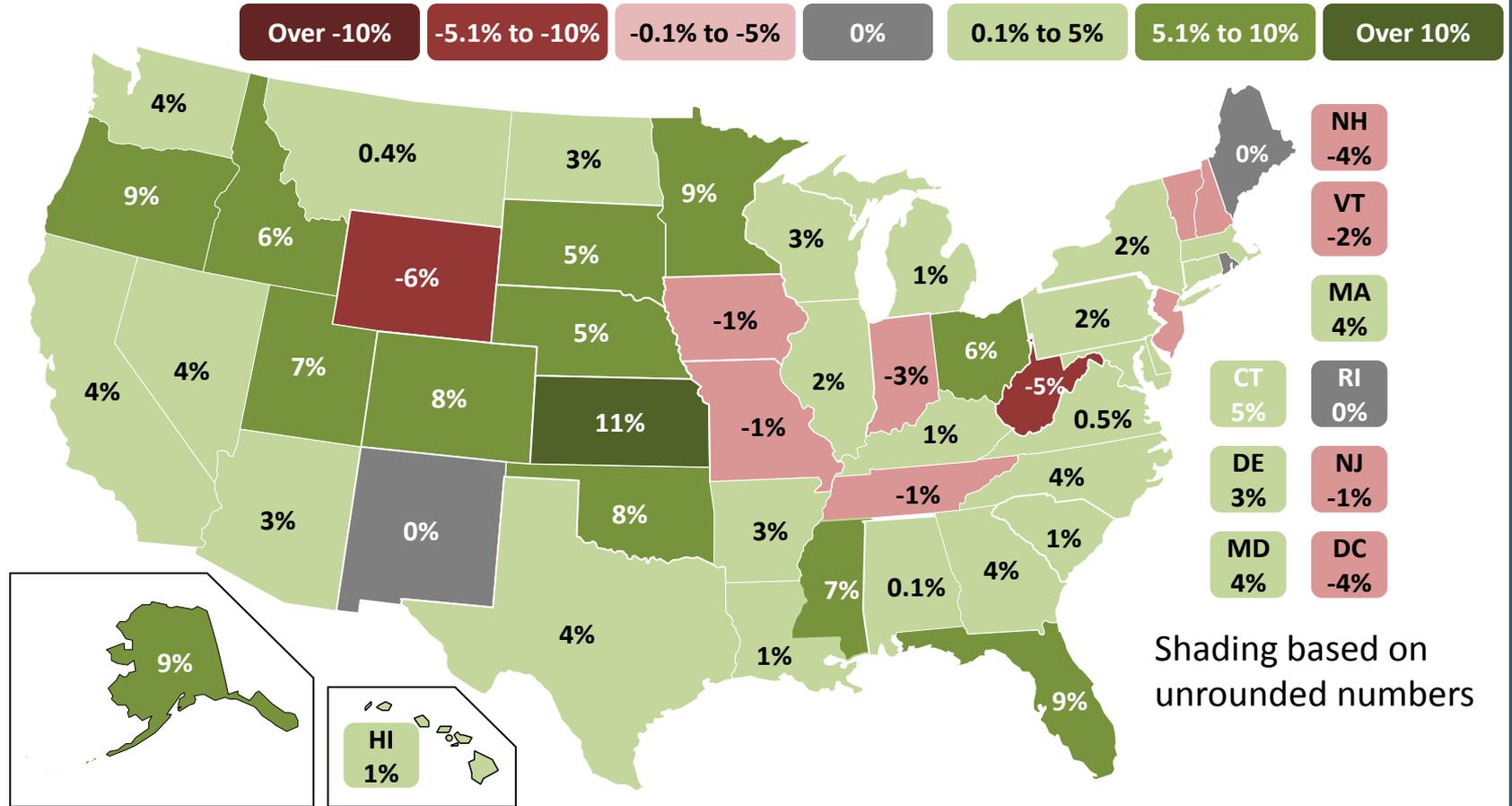


Construction spending: public works (billion \$, SAAR)



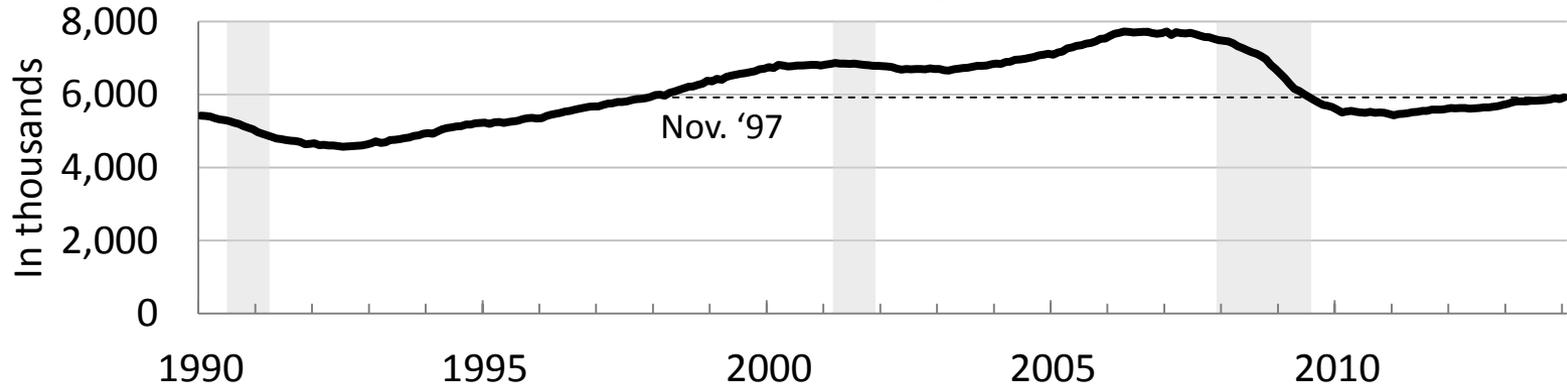
State construction employment change (U.S.: 3.2%)

1/13 to 1/14: 38 states **up**, 9+ DC **down**, 3 unchanged



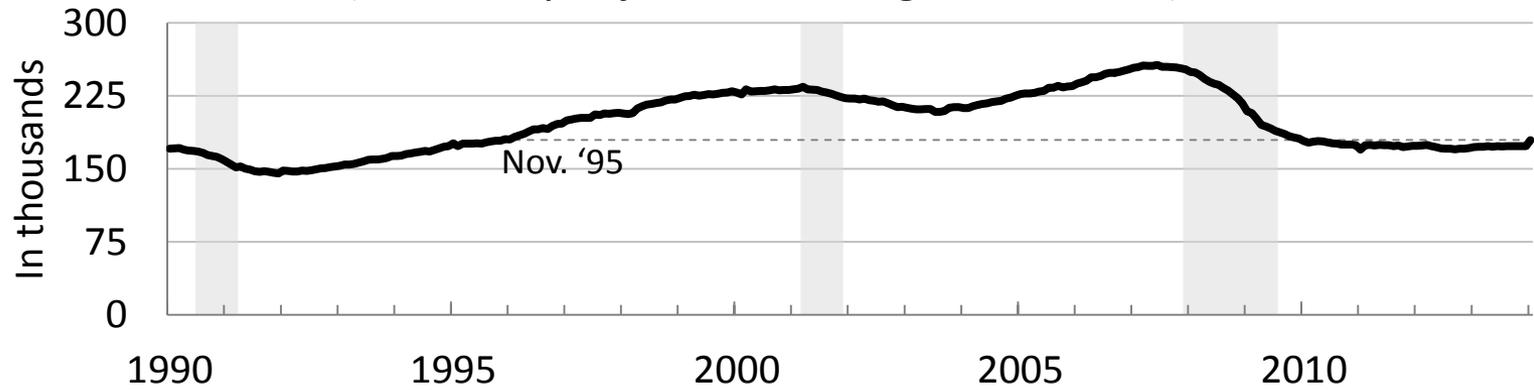
Construction Employment in United States, 1/90-1/14

(seasonally adjusted; shading = recessions)

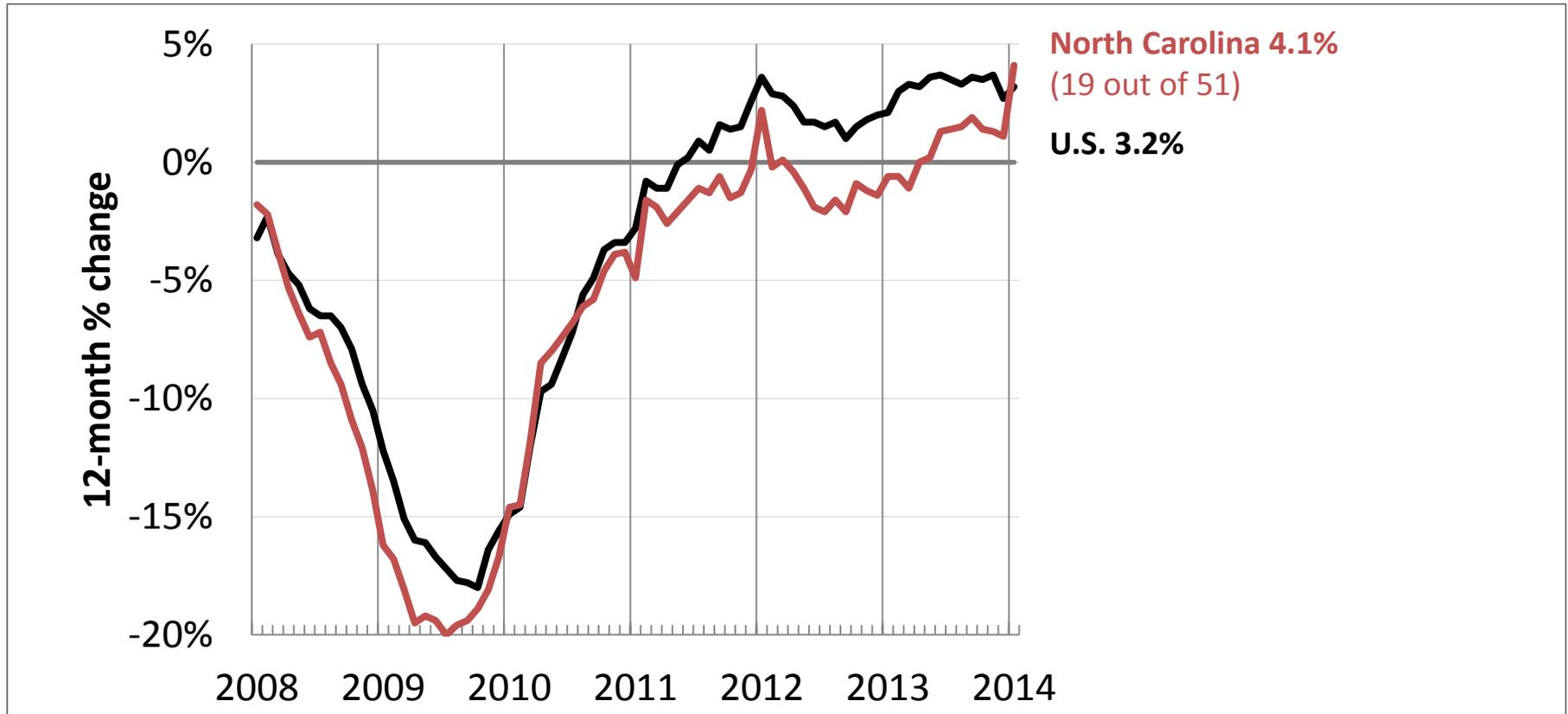


Construction Employment in North Carolina, 1/90-1/14

(seasonally adjusted; shading = recessions)



Construction Employment Change from Year Ago 1/08-12/13 (seasonally adjusted)



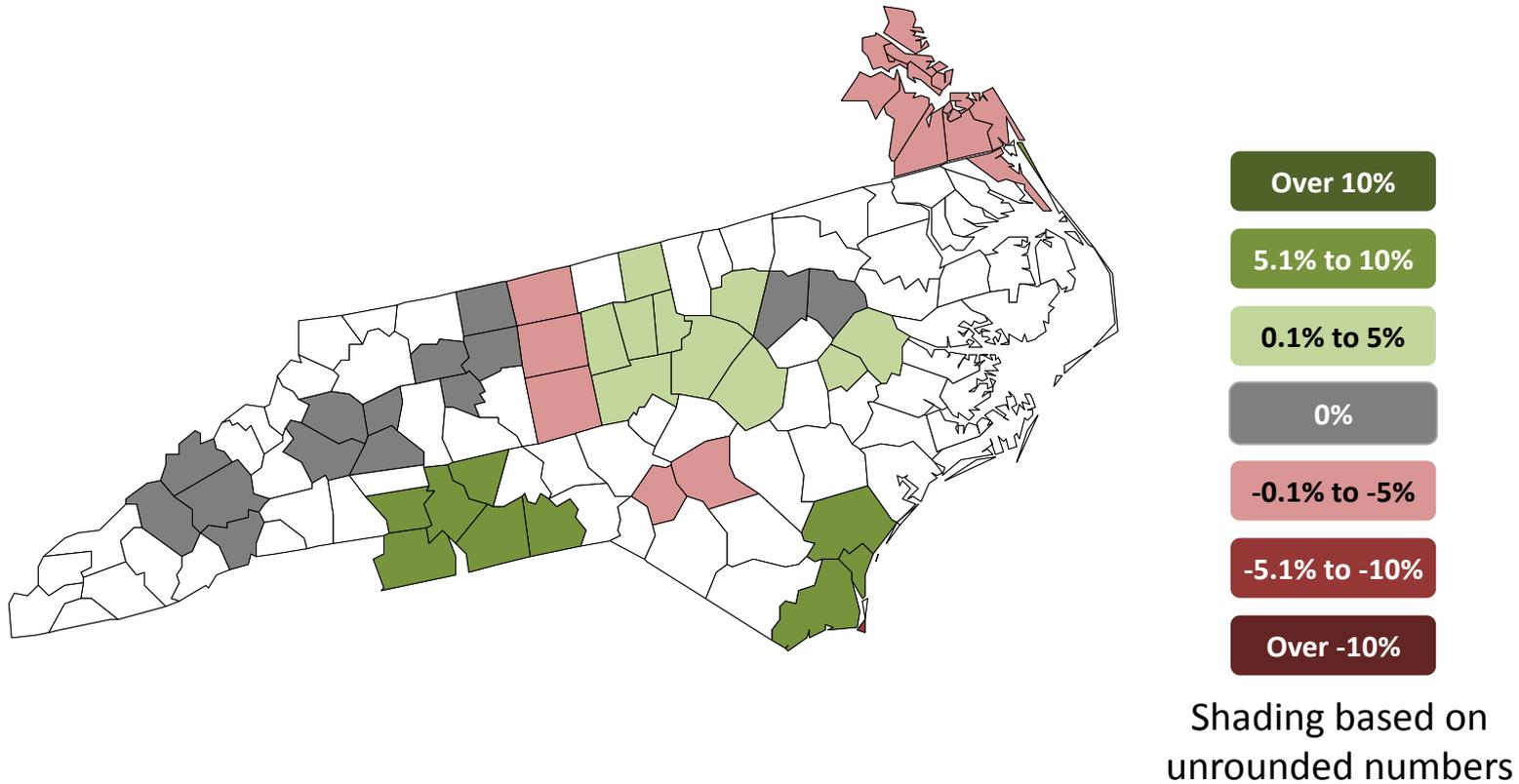
Change in construction employment, 1/13-1/14

not seasonally adjusted (NSA)

Metro area or division	12-mo. empl. change (NSA)	Rank (out of 339)
Statewide* (Const/mining/logging)	3%	
Asheville*	0%	196
Burlington*	4%	124
Charlotte-Gastonia-Rock Hill, NC-SC*	7%	68
Durham-Chapel Hill*	2%	166
Fayetteville*	-4%	278
Greensboro-High Point*	-1%	251
Greenville*	4%	124
Hickory-Lenoir-Morganton*	0%	196
Raleigh-Cary*	2%	166
Rocky Mount*	0%	196
Wilmington*	8%	49
Winston-Salem*	0%	196
Virginia Beach-Norfolk-Newport News, VA-NC*	-4%	278

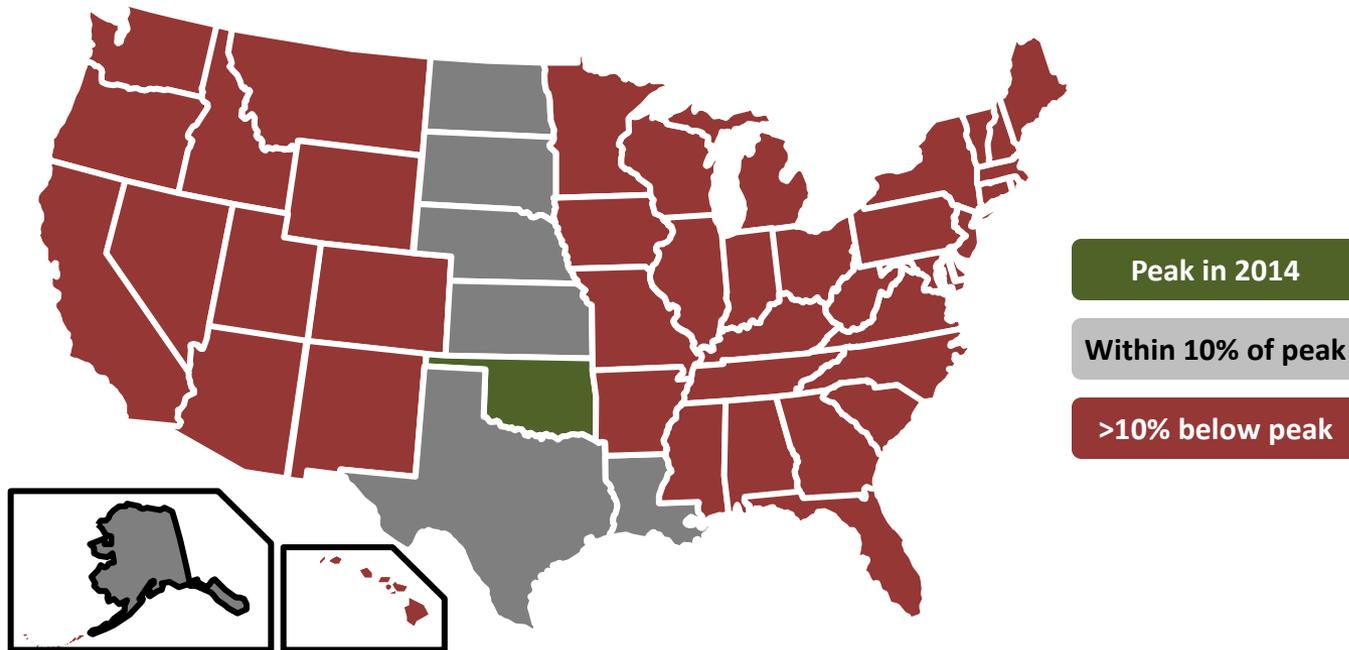
**The Bureau of Labor Statistics reports employment for construction, mining and logging combined for metro areas in which mining and logging have few employers. To allow comparisons between states and their metros, the table shows combined employment change for these metros. Not seasonally adjusted statewide data is shown for both construction-only and combined employment change.*

Construction employment change by NC metro, 1/13-1/14



Construction employment, Jan '14 vs. peak

- US: construction -23% (-1.8 million) below Apr. '06 peak
- States: Okla. at new peak in 2014, 42 states > 10% below
- Metros: only 21 of 339 at new Jan. peak, not seas. adjusted



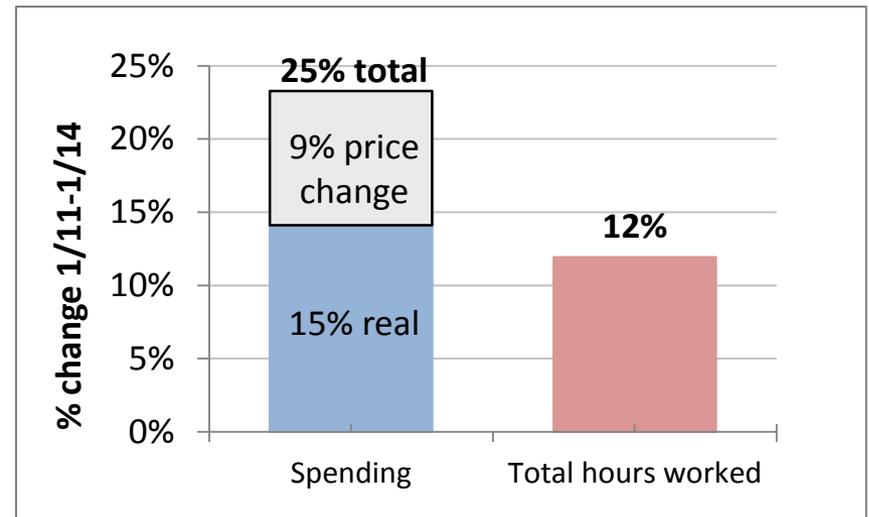
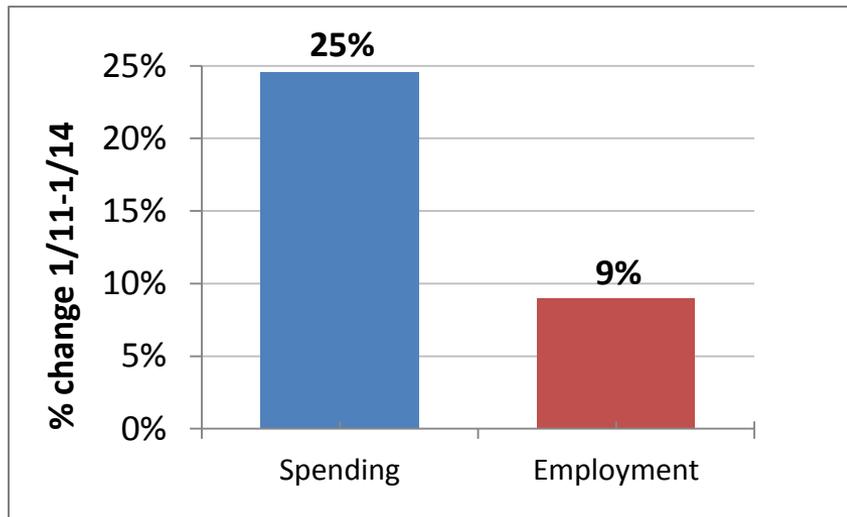
12-Month Percent Change in State Construction Employment (seasonally adjusted), January 2010-January 2014



Construction spending, labor & prices, 1/11-1/14

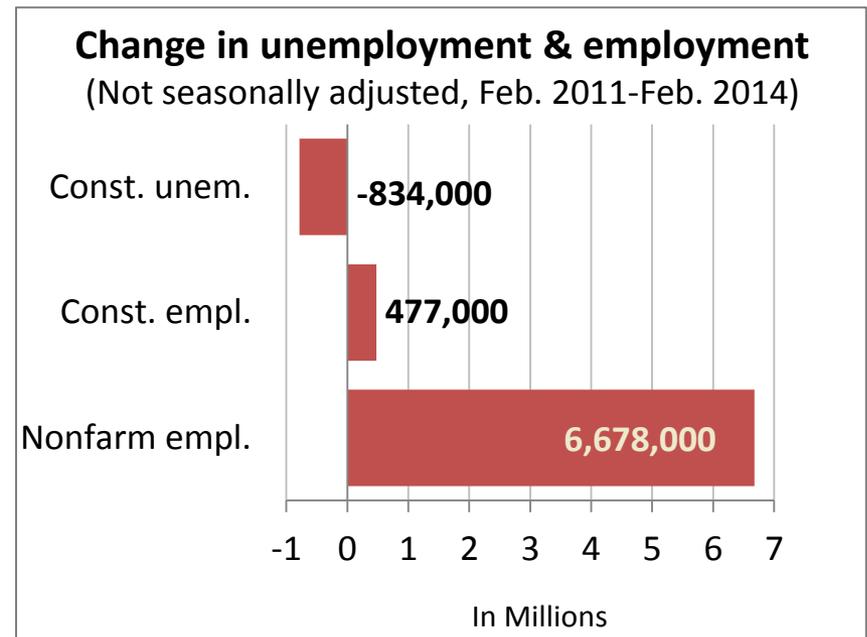
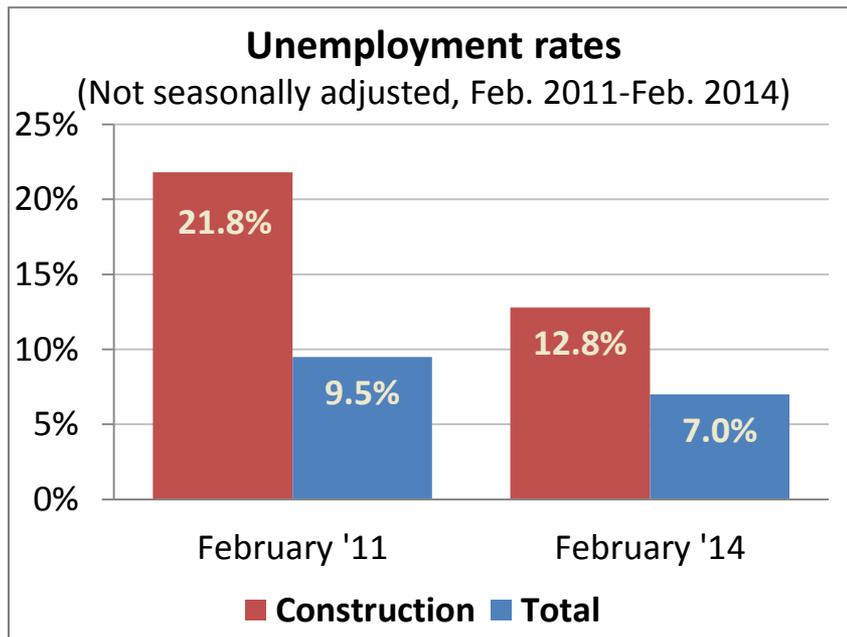
Spending +25% but jobs only +9%. How do they do it?

- Contractors charging slightly more: PPI +9% (industrial buildings)
- More hours per worker: aggregate hours +12% (+3% per employee)
- Implication: further spending growth will trigger bigger pickup in hiring—but will workers be available?



Construction vs. overall (un)employment, 2/11-2/14

- Construction unemployment fell sharply in past 3 years
- But industry employment has risen modestly
- Thus, workers are leaving for other sectors, school, retiring



Hardest positions to fill

(% of respondents who are having trouble filling)

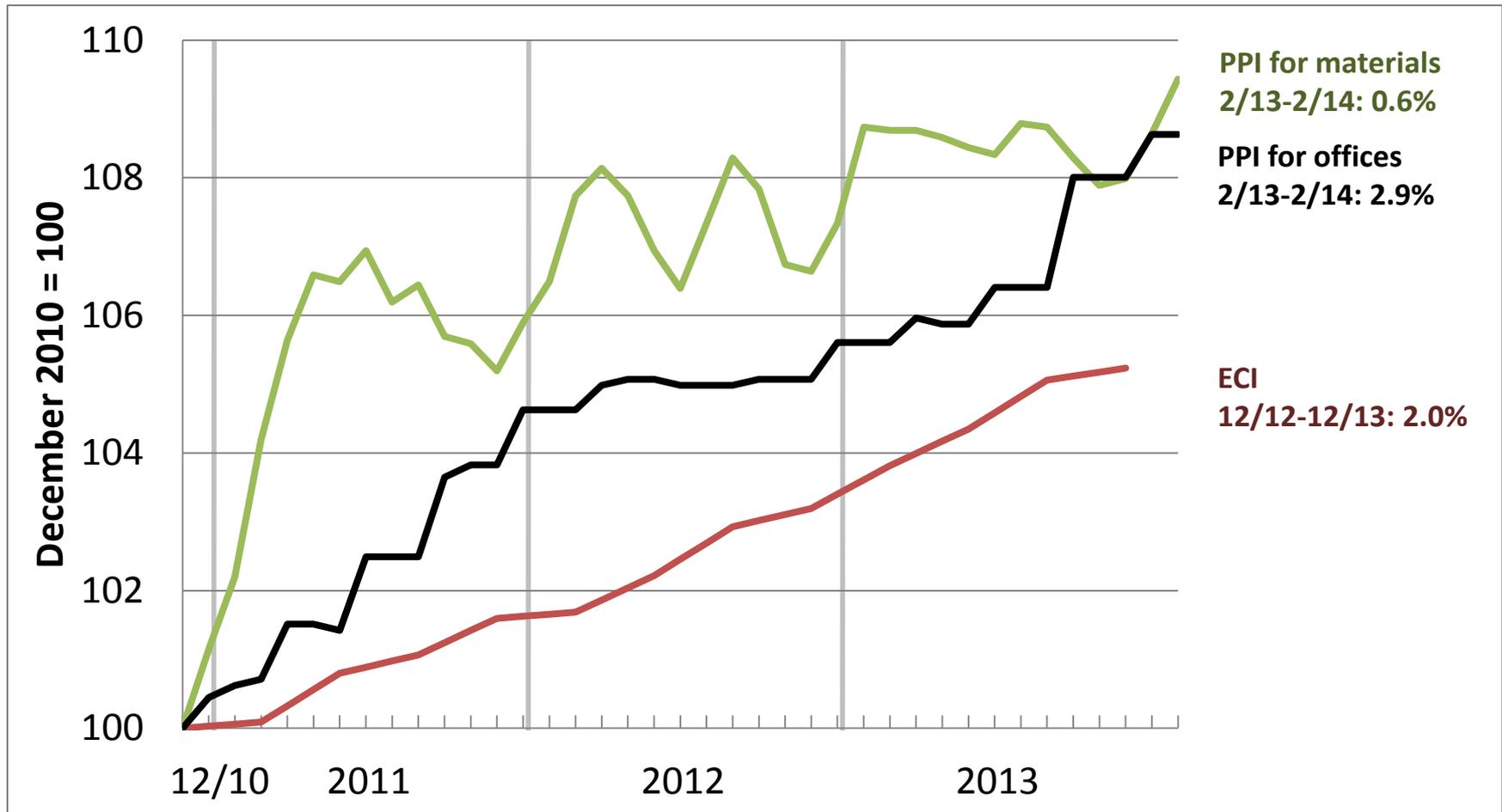
Craft

Equipment operators	49%
Carpenters	44
Laborers	37

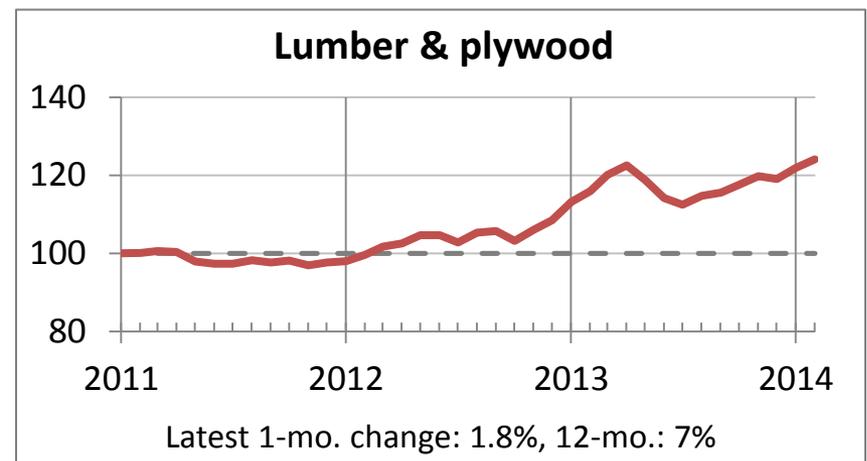
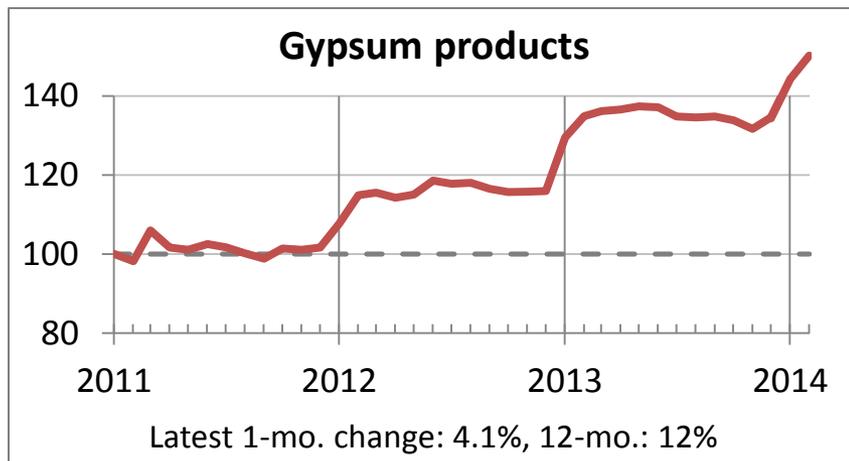
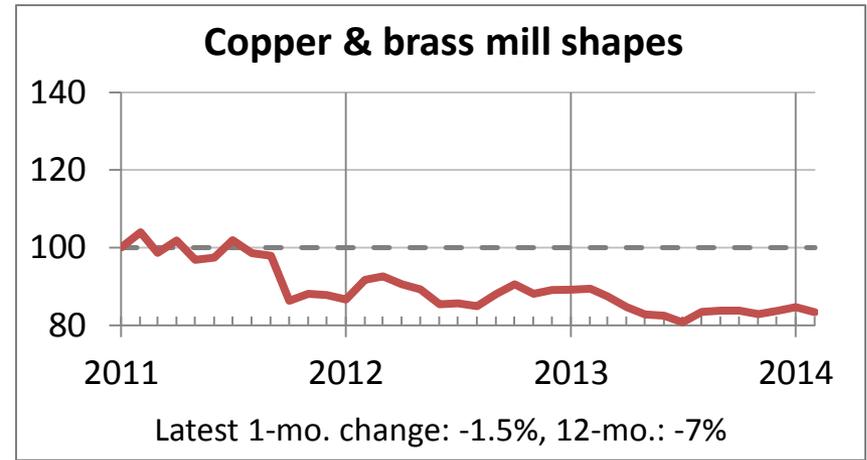
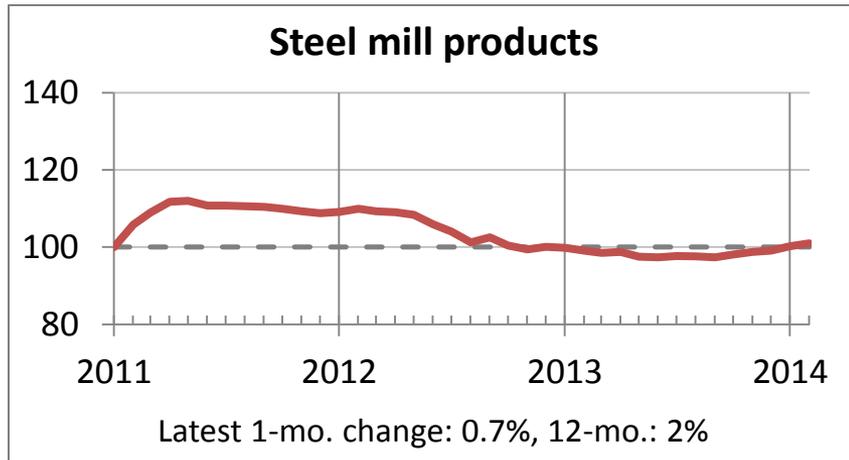
Professional

Project managers/supervisors	49%
Estimators	41

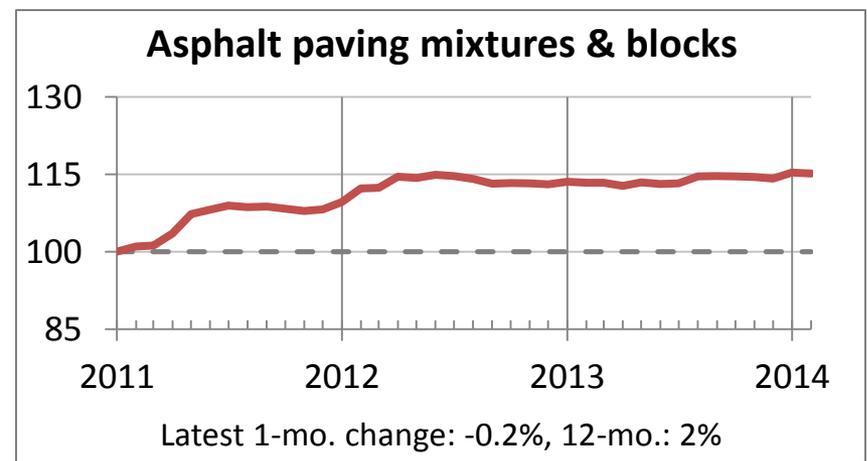
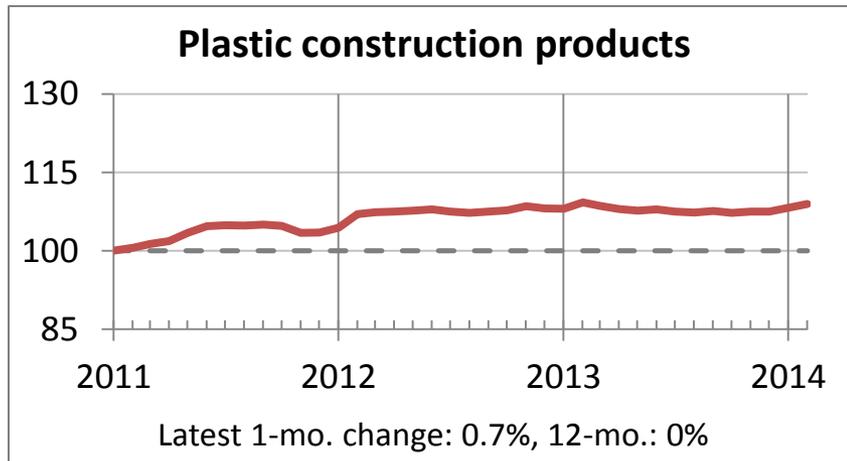
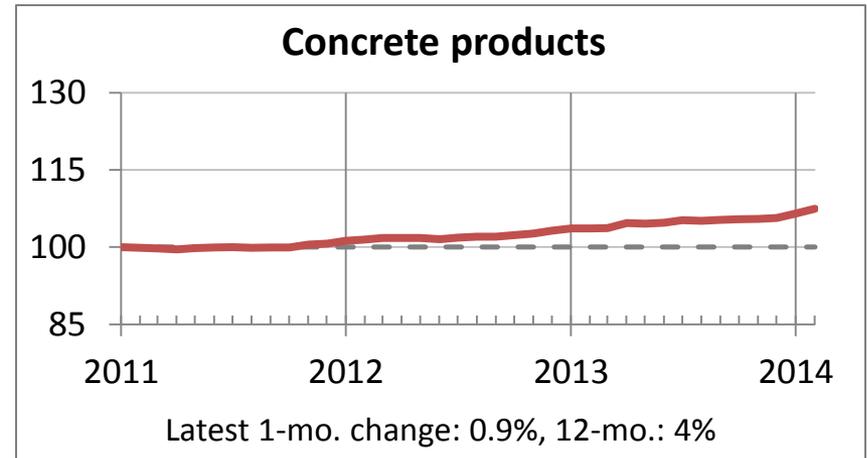
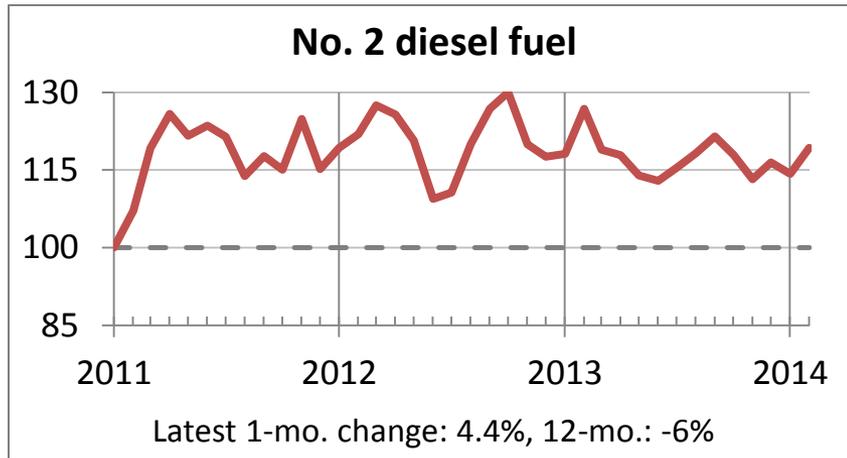
Material & labor costs vs. office bid prices since 12/10



Producer price indexes for key inputs, 1/11-2/14 (Jan. 2011=100)



Producer price indexes for key inputs, 1/11-2/14 (Jan. 2011=100)



Best prospects for 2014

- Multifamily
- Manufacturing, esp. petrochemical, oil/gas supply
- Oil & gas fields
- Pipelines
- Warehouses
- Lodging (hotels & resorts)
- Rail
- Data centers

Trends: 2014-2017

- Total construction spending: +6% to +10% per year
 - less SF housing, retail; declining public spending
 - new drivers: shale-based gas & oil; Panama Canal widening; more elderly & kids, fewer young adults
- Materials costs: +1 to +3% (similar to CPI); rare spikes
- Labor costs: +2.5% to + 5%
- Labor supply: widespread shortages possible due to retirements, competition from other sectors, fewer vets

Summary for 2013, 2014-17

	2012 actual	2013 actual	2014-17 ann. avg. forecast
Total spending	9%	5%	6-10%
Private – residential	15%	18%	1-10%
– nonresidential	16%	-1%	1-10%
Public	-3%	-3%	0 or less
Materials PPI	1.4%	1.3%	1-3%; rare spikes
Employment cost index	1.6%	2.0%	2.5-5%

AGC economic resources

(email simonsonk@agc.org)

- The Data DIGest: weekly 1-page email (subscribe at www.agc.org/datadigest)
- monthly press releases: spending; PPI; national, state, metro employment
- state and metro data, fact sheets
- webinar April 17 with AIA, Reed
- website: <http://www.agc.org/Economics>



Sept. 24-Oct. 2, 2009
Vol. 9, No. 33

Construction job losses remain heavy, widespread; homebuilding rises, nonres sinks

[Download the one-page Data DIGest](#)

City-by-City Construction Employment, August 2009 and 2008

Seasonally adjusted nonfarm payroll job losses in September totaled 263,000, barely half the average of the last 12 months, the Bureau of Labor Statistics (BLS) reported on Friday. (Seasonal adjustment takes into account normal monthly variations in weather and numbers of work days.) *But construction, particularly nonresidential, continued to hemorrhage jobs. Construction lost 15% of its September 2008 jobs in the last 12 months, compared to 4% for the entire nonfarm economy. September losses totaled 51,000 in nonresidential building, specialty trade, and heavy and civil engineering construction combined, nearly the monthly average loss of 54,000 over the past 12 months. Residential building and specialty trade contractors shed a combined 13,000 jobs in September, barely a third as many as the monthly average over the 12-month span. One faintly positive sign was that architectural and engineering services employment, a harbinger of future demand for construction, rose for the first time in 15 months, albeit by only 500 jobs (0.04%). Average hourly earnings in construction tumbled 16 cents to \$22.45 in September, bringing the 12-month change to 36 cents or 1.6%, compared to 2.5% for all private-sector production or nonsupervisory employees. The overall unemployment rate climbed to 9.5% in September, not seasonally adjusted (9.8%, seasonally adjusted) from 6.0% a year earlier. The unemployment rate in construction, 17.1%, not seasonally adjusted, again topped every other industry and was up from 9.9% a year earlier.*

For the eighth month in a row, all 372 metro areas had higher unemployment rates in August than a year earlier, BLS reported on Wednesday. (Seasonally adjusted industry and metro unemployment rates are not available.) Of the 369 areas reporting nonfarm payroll employment, 356 had year-to-year losses, 11 had gains and two were unchanged. The largest percentage gains were in Sandusky, Ohio, 2.7%; Hot Springs, Arkansas, 2.6%; Kennewick-Pasco-Richland, Washington, 2.5%; Jonesboro, Ark., 1.9%; and McAllen-Edinburg-Mission, Texas, 1.5%. *If sustained, these gains can lead to more demand for construction. AGC compiled a list of 337 areas, including divisions and subdivisions of the 34 largest metros, for which BLS provided construction employment figures (combined with mining and logging in metros where employment in these industries is small). Construction employment fell over the past 12 months in 324 of these locations, rose in eight and was unchanged in five. The largest 12-month percentage construction employment gains were in Columbus, Indiana, 14% (combined data); Anderson, Ind., 6% (combined); Tulsa (construction only); Longview, Wash. (combined) and Baton Rouge (construction only), 3% each. The worst construction job losses were in Reno-Sparks, Nevada, -35% (construction only); Duluth, Minnesota-Wisconsin, -53% (combined); Tucson, -31% (construction only); Wenatchee-East Wenatchee, Wash., -30% (combined); and Redding, California, -28% (combined).*

Construction in Chicago will not get a boost from the Olympics. The International Olympic Committee today awarded the 2016 Games to Rio.

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The Economic Impact of Construction in the United States and North Carolina

Economic Impact of Investment in Nonresidential Construction:

- An additional \$1 billion invested in nonresidential construction would add \$3.4 billion to Gross Domestic Product (GDP), \$1.1 billion to personal earnings and create or sustain 28,500 jobs.
 - About one-third (9,700) of these jobs would be on-site construction jobs.
 - About one-sixth (4,600) of the jobs would be indirect jobs from supplying construction materials and services. Most jobs would be in-state, depending on the project and the mix of in-state suppliers.
 - About half (14,300) of the jobs would be induced jobs created when the construction and supplier workers and owners spend their additional incomes. These jobs would be a mix of in-state and out-of-state jobs. Conversely, investments elsewhere would support some indirect and induced jobs in the state.

Nonresidential Construction Spending:

- Nonresidential spending in the U.S. in 2013 totaled \$562 billion (\$266 billion public, \$296 billion private).
- Private nonresidential spending in North Carolina totaled \$5.6 billion in 2012. (Public spending is not available by state.)
- Nonresidential starts in North Carolina totaled \$7.6 billion in 2012, according to Reed Construction Data.

Construction Employment (Seasonally Adjusted):

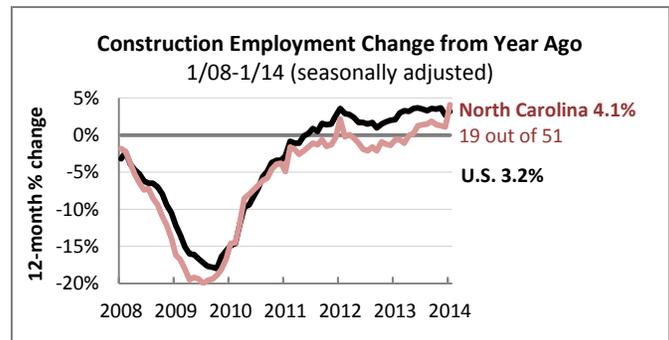
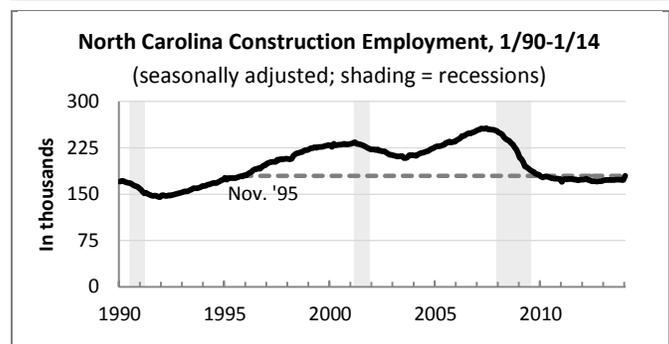
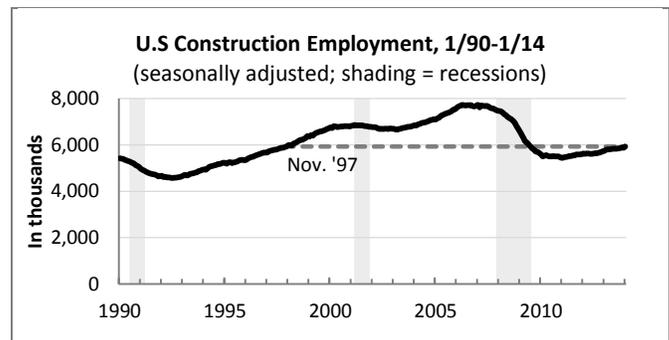
- Construction (residential + nonresidential) employed 5.9 million workers in January 2014, an increase of 183,000 (3.2%) from January 2013 and a decrease of 1.8 million (23%) from April 2006 when U.S. construction employment peaked.
- Construction employment in North Carolina in January totaled 179,600, an increase of 4.1% from January 2013 and a decrease of 30% from the state's peak in June 2007.

Construction Industry Pay:

- In 2012, annual pay of all construction workers in the United States averaged \$52,300, 6% more than the average for all private sector employees.
- Construction workers' pay in North Carolina averaged \$43,300, the same as all private sector employees in the state.

Small Business:

- The United States had 657,700 construction firms in 2011, of which 92% employed fewer than 20 workers.
- North Carolina had 21,500 construction firms in 2011, of which 92% were small (<20 employees).



Empl. Change by Metro (not seasonally adjusted)		Rank (out of 339)
Metro area or division	1/13-1/14	
Statewide* (Const/mining/logging)	3%	
Asheville*	0%	196
Burlington*	4%	124
Charlotte-Gastonia-Rock Hill, NC-SC*	7%	68
Durham-Chapel Hill*	2%	166
Fayetteville*	-4%	278
Greensboro-High Point*	-1%	251
Greenville*	4%	124
Hickory-Lenoir-Morganton*	0%	196
Raleigh-Cary*	2%	166
Rocky Mount*	0%	196
Wilmington*	8%	49
Winston-Salem*	0%	196
Virginia Beach-Norfolk-Newport News, VA-NC*	-4%	278

*The Bureau of Labor Statistics reports employment for construction, mining and logging combined for most metro areas and some states in which mining and logging have few employers. To allow comparisons between states and their metros, the table shows combined employment change.

Most states, metros added jobs in latest year; MHC, Reed, ABI differ on activity levels

Seasonally adjusted construction employment increased in 38 states between January 2013 and January 2014, decreased in nine states and the District of Columbia, and remained level in Maine, New Mexico and Rhode Island, an AGC analysis of Bureau of Labor Statistics (BLS) data released on Monday showed. The largest percentage gains were in Kansas (10.7%, 5,900 jobs); Oregon (9.4%, 6,600); Florida (9.2%, 32,700); Minnesota (9.2%, 8,900) and Alaska (9.1%, 1,500). Florida added the most jobs, followed by California (27,300, 4.4%) and Texas (26,000, 4.3%). The largest annual percentage losses occurred in Wyoming (-5.9%, -1,300 jobs) and West Virginia (-5.4%, -1,900). Indiana lost the most jobs (-3,700 jobs, -3.0%), followed by West Virginia, Wyoming and New Jersey (-1,300 jobs, -1.0%). For the month, 27 states added construction jobs, 21 states and D.C. lost jobs, and employment was unchanged in Connecticut and North Dakota. Idaho added the highest percentage of new construction jobs between December and January (5.8%, 1,900 jobs), and Ohio added the most jobs (8,000, 4.3%). Vermont experienced the largest percentage decline for the month (-5.5%, -800 jobs). California shed the most construction jobs (-6,600, -1.0%). (BLS made routine annual revisions in monthly totals going back to 1990. The agency combines mining and logging with construction in D.C. and six states to avoid disclosing data for industries with few firms.)

From January 2013 to January 2014 construction employment increased in 195 out of 339 metropolitan areas (including divisions of larger metros) for which BLS reports construction data, declined in 90 and was flat in 54, according to an analysis of BLS data that AGC released on Thursday. (Because metro data is not seasonally adjusted, comparisons with months other than January are not meaningful.) The Los Angeles-Long Beach-Glendale division added the most jobs in the past year (8,100 construction jobs, 7%), followed by Houston-Sugar Land-Baytown (7,900 construction jobs, 4%) and the Santa Ana-Anaheim-Irvine, Calif. division (7,800 jobs, 11%). The largest percentage gains occurred in Pascagoula, Miss. (46%, 2,100 combined jobs), El Centro, Calif. (39%, 700 combined jobs) and Steubenville-Weirton, Ohio-W.Va. (38%, 600 combined jobs). The Gary, Ind. division had the highest number and percentage of jobs lost (-4,400 construction jobs, -25%).

"New construction starts in February were essentially the same as January's amount," at a seasonally adjusted annual rate, McGraw Hill Construction (MHC) reported on Thursday, based on data it collected. "The flat pace for total construction starts in February was due to a mixed performance by major sector—less nonresidential building [-9% for the month], but more housing [3%] and public works [8%]. For the first two months of 2014, total construction starts on an unadjusted basis were...down 3% from the same period a year ago."

The value of nonresidential construction starts dropped 3.2%, not seasonally adjusted, from February 2013 to February 2014, Reed Construction Data reported on Tuesday, based on data it collected. Year-to-date data for the first two months of 2014 were down 5.0% from the same months of 2013. Nonresidential building construction starts slumped 14% year-to-date, with drops in commercial (-16%) and institutional (-3.1%) building starts. Heavy engineering starts rose 12%.

For the second straight month, the number of architecture firms reporting that billings rose in February edged out the number reporting decreases, the American Institute of Architectures stated on Wednesday in its latest Architecture Billings Index (ABI). The ABI, a harbinger of construction spending 9-12 months later, hit 50.7 in February and 50.4 in January, following two months just below the breakeven level of 50. Practice specialty sub-indexes (calculated as three-month averages) varied: residential (mainly multifamily), 52.5, up from 51.8 in January; commercial/industrial, 51.9, up from 50.9; institutional, 49.6, still below breakeven but up from 46.5; and mixed practice, 46.6, down from 48.4.

Privately-owned housing starts in February dipped 0.2% at a seasonally adjusted annual rate from an upwardly revised January total, the Census Bureau reported on Tuesday. Starts may have been depressed by unusually harsh winter weather in much of the country. Single-family starts edged up 0.3%, while multifamily (5 or more units) starts slipped 2.5%. Building permits, which are less susceptible than starts to weather disruptions and are a generally reliable indicator over time of future starts, rose 7.7% as a 28% surge in multifamily permits more than offset a 1.8% drop in single-family permits.

"The increased availability of inexpensive natural gas is driving project activity in other sectors, perhaps most notably the chemical processing industry, which is experiencing high spending growth, due in large part to a sharp increase in the construction of new ethylene and methanol units, which require significant time, resources and manpower to construct," project-tracking firm Industrial Info Resources reported on Wednesday. "Current forecasts show labor demand in the overall Gulf Coast region peaking in 2016, with labor demand for eight skilled crafts, including electricians, welders, pipefitters, iron workers and others, approaching 91,000 skilled craftsmen for the year, compared to approximately 53,770 in 2013."

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